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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/535,889	03/27/2000	Pankaj K. Jha	0325.00345	3979

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EXAMINER

GEORGE, KEITH M

ART UNIT	PAPER NUMBER
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2663

12

DATE MAILED: 04/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/535,889

Applicant(s)

JHA, PANKAJ K.

Examiner

Keith M. George

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5,7,9,10,12-17,21-23 and 25-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5,7,9,10,12-17,21-23 and 25-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The finality of the Office action mailed 30 December 2003 is hereby withdrawn in view of the new ground of rejection set forth below.

Claim Objections

2. Claim 17 is objected to because of the following informalities: in line 3 of the claim, "envelop" should probably read "envelope". Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 7 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There does not appear to be any teaching in the specification that a Simple Data Link packet is configured to store configuration information to identify one of a plurality of protocols used in a packet.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 3, 5, 10, 12-15, 17, 23, 25, and 27 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Ravikanth et al., U.S. Patent 6,331,978, hereinafter Ravikanth.

7. Referring to claim 1, Ravikanth teaches a generic label encapsulation protocol for carrying label switched packets over serial links including PPP that uses SONET transports as octet oriented synchronous links. The octet stream is mapped into the SONET synchronous payload envelope (SPE) (frame comprising a packet envelope). SONET includes multiplexing principles such as mapping, aligning, multiplexing and stuffing. One of the benefits of SONET is that it can carry large payloads (carrying a plurality of packets) (column 2, lines 10-23). Ravikanth goes on to teach in figure 2 a generic label encapsulation protocol that contains a label (210) and a payload (230). Those skilled in the art will recognize that in addition to the MPLS label identifier, fields like MAC bits (link layer address), Class of Service bits, congestion indication bits, etc. may be included, and in such a case, the label field 210 indicated above could be more than 3 bytes (column 5, lines 24-25, 55-59).

8. Referring to claim 17, Ravikanth teaches the apparatus described in reference to claims 1 and 13-15 where it was clearly shown in reference to figure 1 that the generic label encapsulation

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protocol enables the carrying of a label and the associated packet in a fashion that will enable easy switching by a label switching router (column 5, lines 18-21).

9. Referring to claim 3, Ravikanth teaches the apparatus described in reference to claim 1 above where it was clearly shown that the network is a Synchronous Optical Network (SONET).

10. Referring to claims 5 and 23, Ravikanth teaches the apparatus described in reference to claim 1 above where it was clearly shown that the label is an MPLS label.

11. Referring to claims 10 and 25, Ravikanth teaches the apparatus described in reference to claim 1 above and also teaches that one of the bits of the label field may be reserved for a "label significant bit." This is to indicate the fact that no payload is being carried (a data identification portion configured to identify a data type) (column 5, lines 59-62).

12. Referring to claim 12, Ravikanth teaches the apparatus described in reference to claim 1 above and also teaches in figure 2 a Label Error Correction (LEC) field 220 used to detect errors in the label header of this GLEP packet (column 5, lines 28-30).

13. Referring to claims 13-15, Ravikanth teaches the apparatus described in reference to claim 1 above and also teaches in figure 1 that the present invention provides a generic label encapsulation protocol that enables the carrying of a label and the associated packet in a fashion that will enable easy switching by a label switching router (LSR) (configured to transport a frame in response to said one or more labels) 150, 152 (plurality of nodes configured to address said one or more labels). Further, the present invention provides a method for extracting the datagram from the label at the remote end (de-framing hardware configured to read one or more labels) (column 5, lines 18-23).

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14. Referring to claim 27, Ravikanth teaches the apparatus described in reference to claim 17 above and also clearly teaches that those skilled in the art will recognize that in addition to the MPLS label identifier, fields like MAC bits (link layer address), Class of Service bits, congestion indication bits, etc. may be included, and in such a case, the label field 210 indicated above could be more than 3 bytes (column 5, lines 24-25, 55-59).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ravikanth in view of Kashio et al., U.S. Patent 5,208,811, hereinafter Kashio. Ravikanth teaches the apparatus described in reference to claim 1 above with the possible exception that a link layer address comprises a destination and a source address. Kashio teaches that a LAN terminal address is represented by a combination of an address of a media access control (MAC destination and source address are abbreviated as DA and SA) and an access point of a logical link control (LLC destination and source access point are respectively denoted as DSAP and SSAP). IN consequence, the LAN terminal provides the OSI layer with a communication path designated as "DA, SA, DSAP, SSAP". Namely, a communication frame assigned with these addresses is transferred through an LAN communication path (column 1, lines 35-45). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art that the

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MAC bits referred to by Ravikanth contain a source and destination address. Kashio simply confirms this well known fact by explicitly stating it. It would have been obvious to a person of ordinary skill in the art to apply the teachings of Kashio to the MAC bits of Ravikanth in order to comply with IEE standards 802.2 to 802.5 (Kashio, column 1, lines 29-31).

17. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ravikanth in view of Partridge et al., U.S. Patent 6,160,819, hereinafter Partridge. Ravikanth teaches the apparatus described in reference to claim 1 above with the possible exception that packet envelope contains packets where a first packet has a first protocol and a second packet has a second protocol. However, Ravikanth does clearly teach the use of SONET. Partridge teaches that SONET is designed to accommodate a wide mixture of protocols and bandwidths such as T-1, T-3, E-1 and other high-speed protocols (column 1, lines 50-52). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art that SONET was capable of mixing multiple protocols. Partridge simply confirms this well know fact by explicitly stating it. It would have been obvious to a person of ordinary skill in the art to apply the teaching of Partridge to the SONET of Ravikanth to comply with the well-known teachings and implementations of SONET.

18. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ravikanth in view of Dantu et al., U.S. Patent 6,532,088, hereinafter Dantu. Ravikanth teaches the apparatus described in reference to claim 1 above with the possible exception that a second packet is void of a label. Dantu teaches in figure 11 that a packet label (MPLS label) is placed in portion 1116. It is understood that a packet may be constructed without portion 1116 for those networks that do not support MPLS (column 16, lines 56-64). At the time the invention was made, it would have

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been obvious to a person of ordinary skill in the art to apply the teachings of Dantu to the generic label encapsulation protocol of Ravikanth. One of ordinary skill in the art would have been motivated to do this in order to accommodate networks that do not support MPLS as taught by Dantu.

19. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ravikanth in view of Ofek, U.S. Patent 6,038,230, hereinafter Ofek. Ravikanth teaches the apparatus described in reference to claim 1 above with the possible exception that a network layer address follows the link layer address. However, Ravikanth does clearly teach that the payload is a variable size packet that may be IPv4 or IPv6 packets or they may be based on any other network layer protocol (column 5, lines 34-38). Ofek teaches that when a packet arrives at an input port of a switch, it is switched to an output port based on specific routing information in the packet's header (e.g., IPv4 destination address (network layer address) in the Internet) (column 8, lines 9-12). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art that an IPv4 packet header contains a destination address. Ofek simply confirms this well known fact by explicitly stating it. It would have been obvious to a person of ordinary skill in the art to apply the teachings of Ofek to the IPv4 packets of Ravikanth in order to understand how an IPv4 packet is to be routed.

Response to Arguments

20. Applicant's arguments with respect to claims 1, 3, 5, 9, 10, 12-15, 21, 22, 16, 17, 23 and 25-27 have been considered but are moot in view of the new ground(s) of rejection.

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21. Applicant's arguments filed 27 February 2004 regarding claim 7 have been fully considered but they are not persuasive. The specification does not make reference to a Simple Data Link packet.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith M. George whose telephone number is 703-305-6531. The examiner can normally be reached on M-Th 7:00-4:30, alternate F 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on 703-308-5340. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Keith M. George
31 March 2004



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TECHNOLOGY CENTER 2600 3/31/04